Figure 1

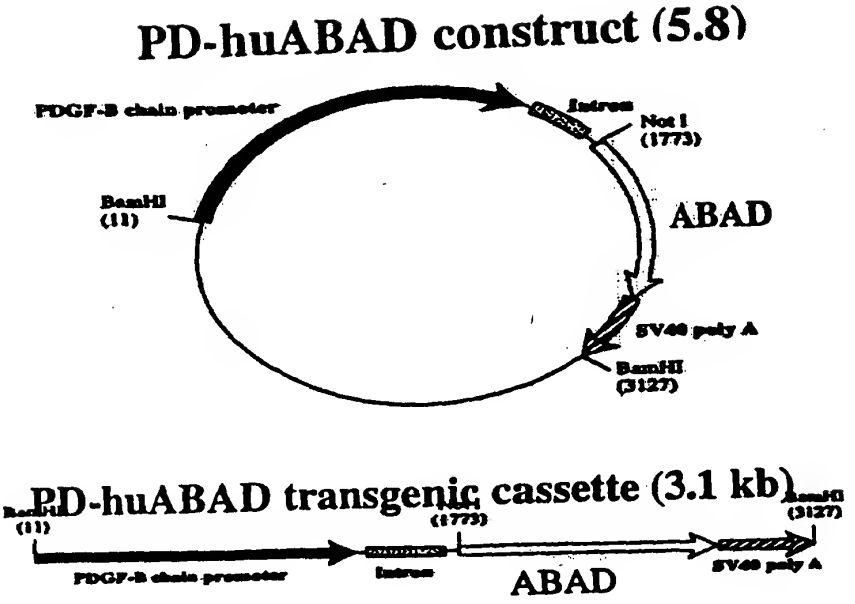

PD-huABAD construct (5.8)
PDGF-B chain promoter
Intron
Not I
(1773)
BamHI
(11)
ABAD
SV40 poly A
BamHI
(3127)
PD-huABAD transgenic cassette (3.1 kb)
(11)
(1773)
(3127)
PDGF-B chain promoter
Intron
ABAD
SV40 poly A

Figure 2

Figure 3

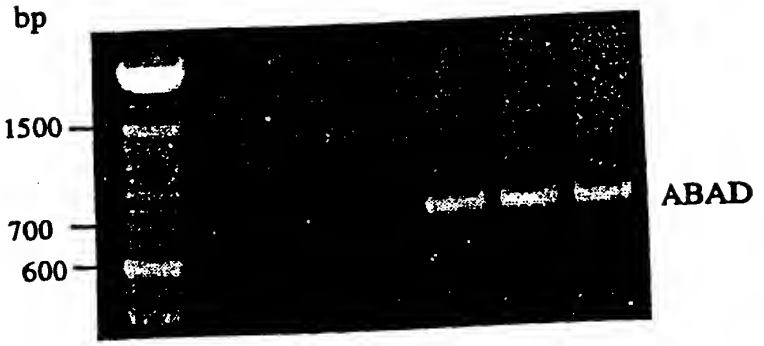


Figure 4

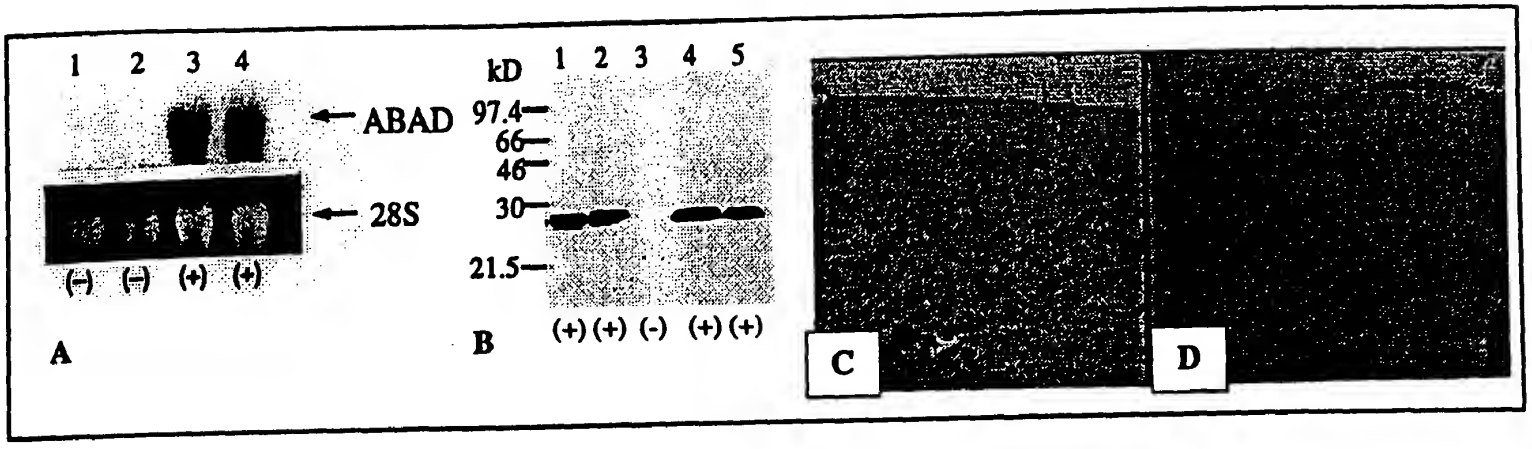
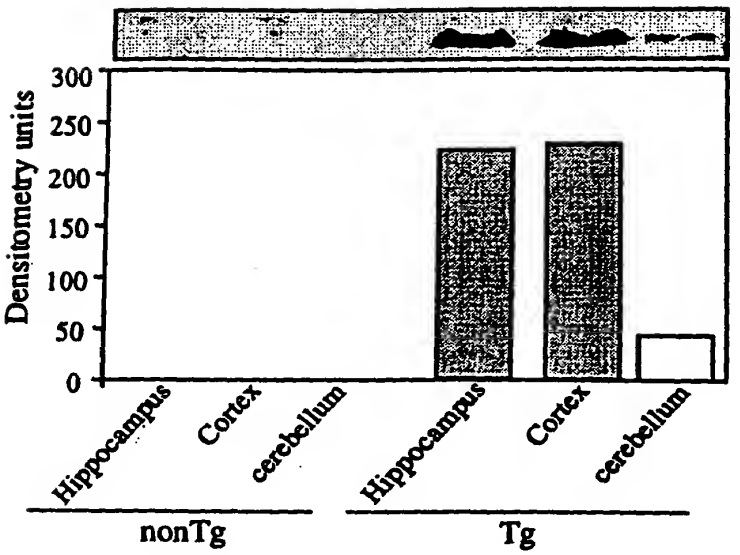
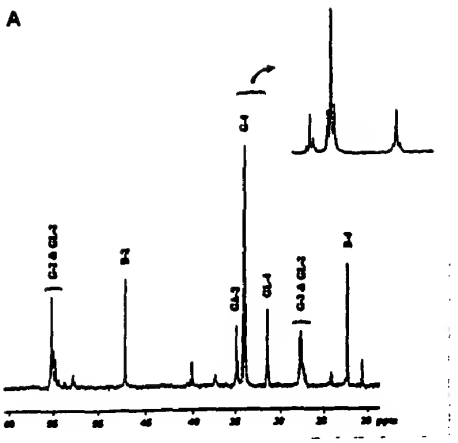
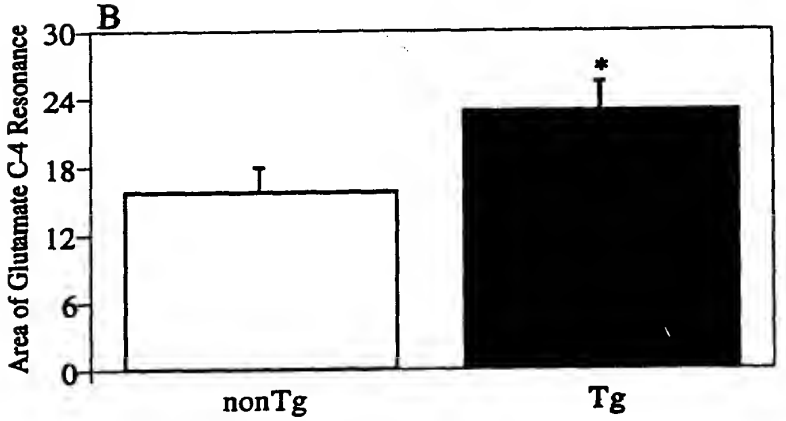


Figure 5


Densitometry units
300
250
200
150
100
50
0
Hippocampus
Cortex
cerebellum
Hippocampus
Cortex
cerebellum
nonTg
Tg


A


B
Area of Glutamate C-4 Resonance
30
24
18
12
6
0
*
nonTg
Tg

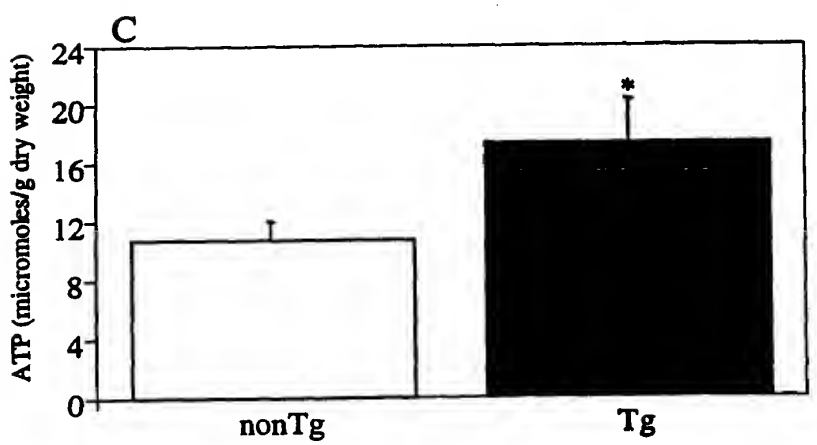

C
ATP (micromoles/g dry weight)
24
20
16
12
8
4
0
*
nonTg
Tg

Figure 7A-D

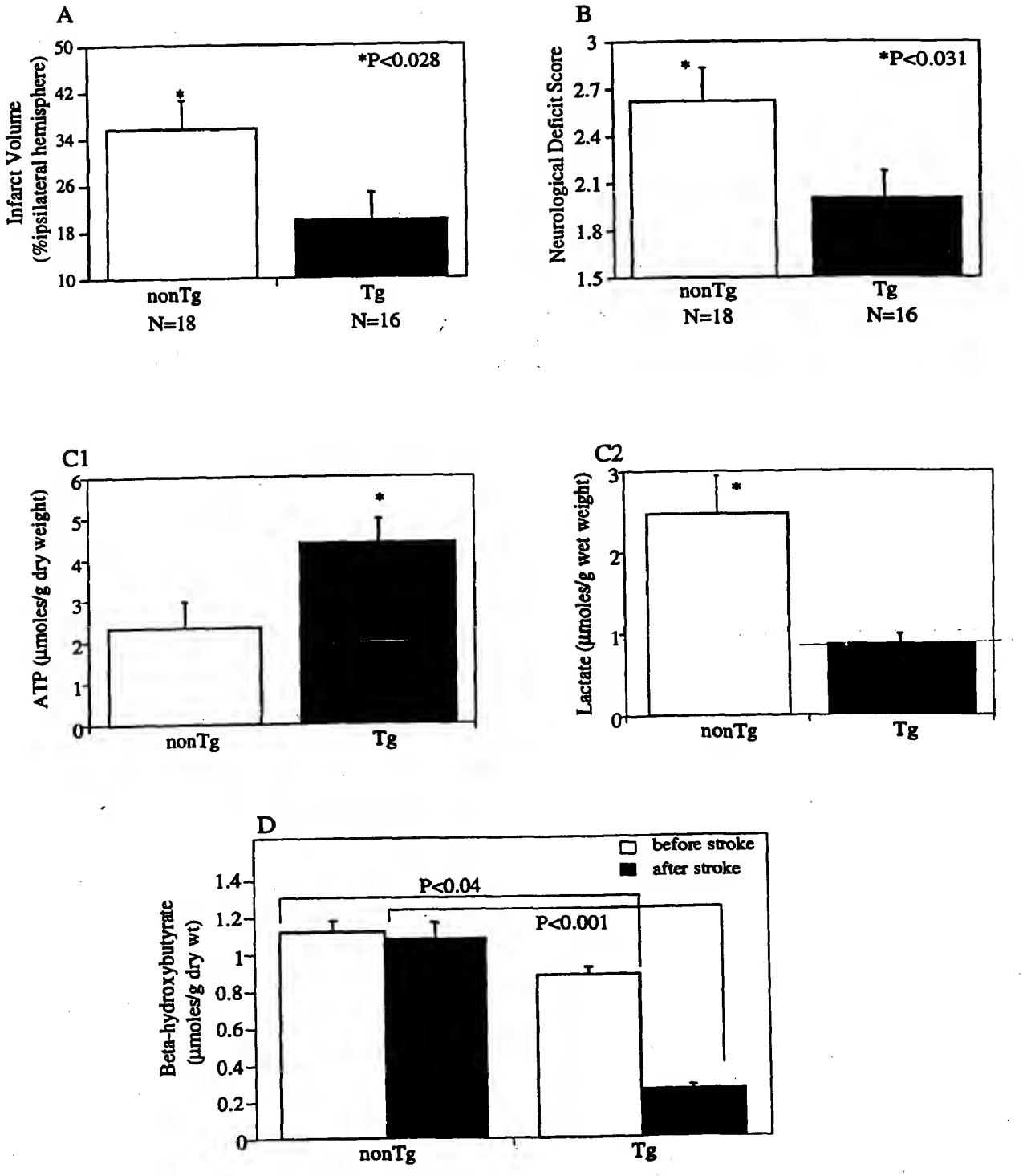

A
Infarct Volume (%ipsilateral hemisphere)
50
42
34
26
18
10
*P<0.028
*
nonTg
N=18
Tg
N=16
B
Neurological Deficit Score
3
2.7
2.4
2.1
1.8
1.5
*P<0.031
*
nonTg
N=18
Tg
N=16
C1
ATP (µmoles/g dry weight)
6
5
4
3
2
1
0
*
nonTg
Tg
C2
Lactate (µmoles/g wet weight)
3
2
1
0
*
nonTg
Tg
D
Beta-hydroxybutyrate (µmoles/g dry wt)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
before stroke
after stroke
P<0.04
P<0.001
nonTg
Tg

Figure 8

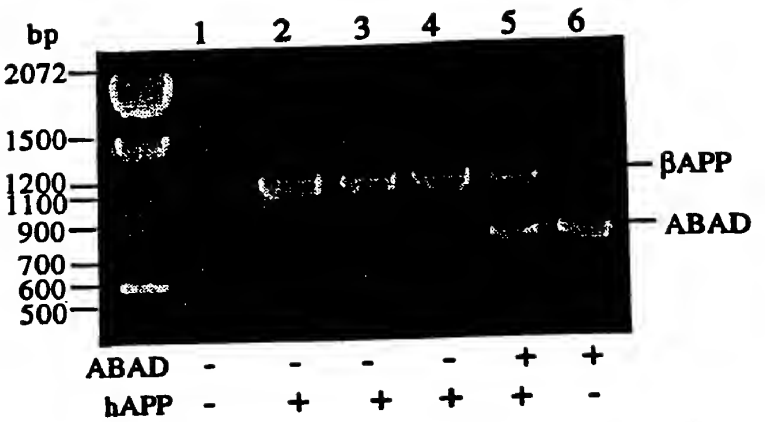

bp
1
2
3
4
5
6
2072
1500
1200
1100
900
700
600
500
βAPP
ABAD
ABAD - - - - + +
hAPP - + + + + -

Figure 9

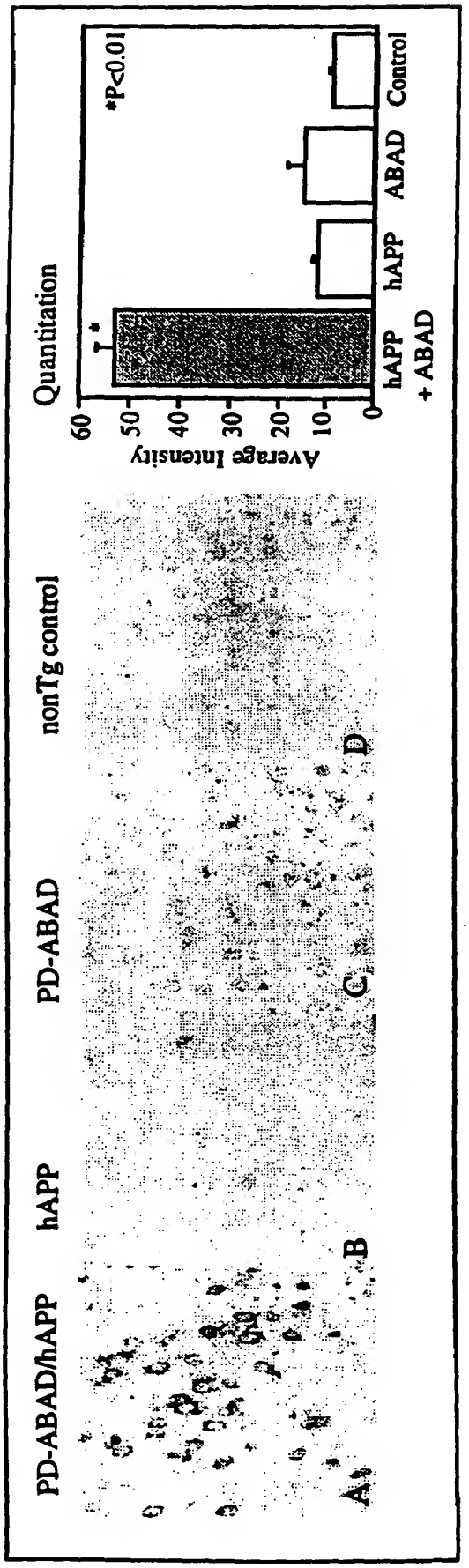
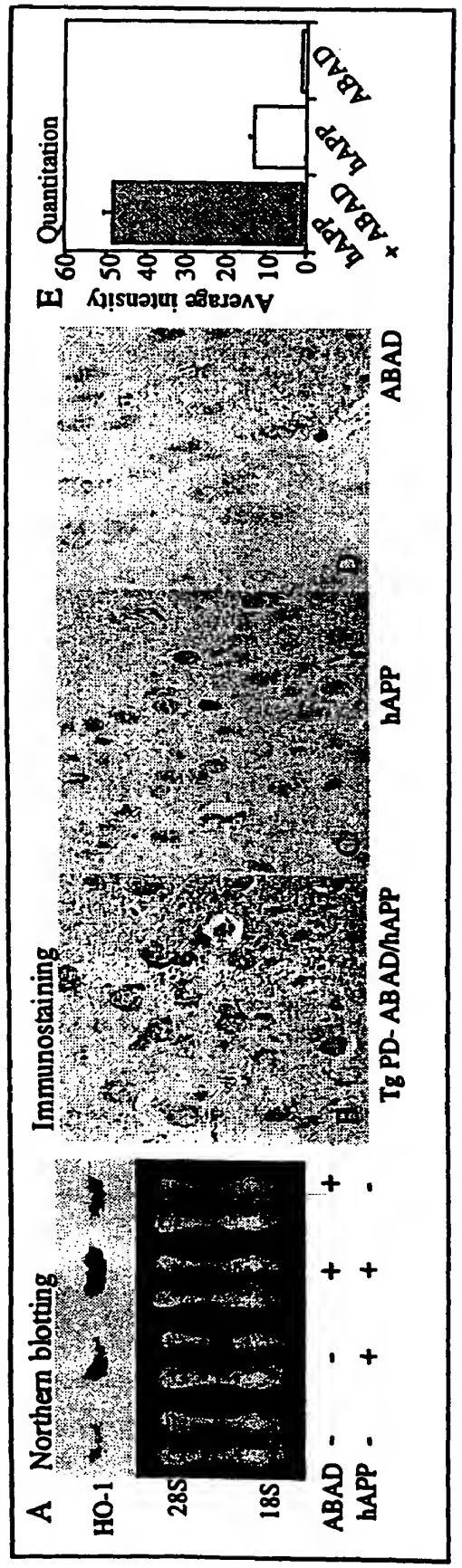
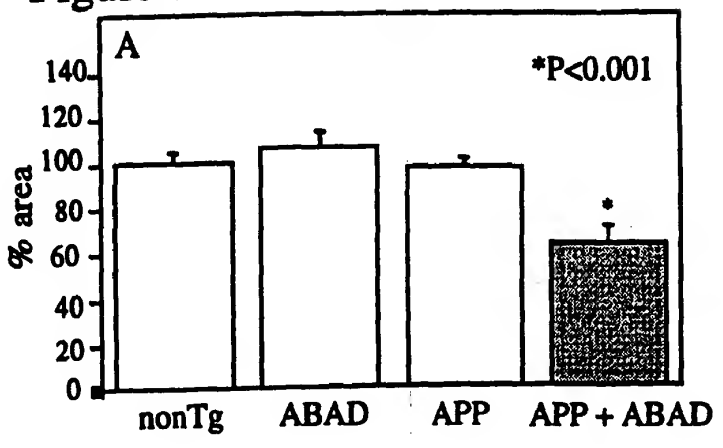

PD-ABAD/hAPP
hAPP
PD-ABAD
nonTg control
A
B
C
D
Quantitation
Average Intensity
60
50
40
30
20
10
0
*P<0.01
hAPP + ABAD
hAPP
ABAD
Control

Figure 10


A
Northern blotting
HO-1
28S
18S
ABAD - - + +
hAPP - + + -
Immunostaining
Tg PD- ABAD/hAPP
hAPP
ABAD
E
Quantitation
Average intensity
60
50
40
30
20
10
0
bAPP
ABAD bAPP
ABAD

00:60:24:96:96

Figure 11



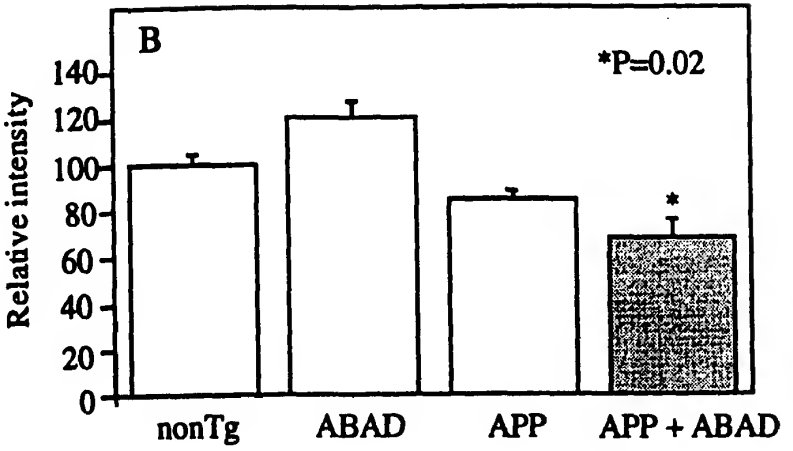
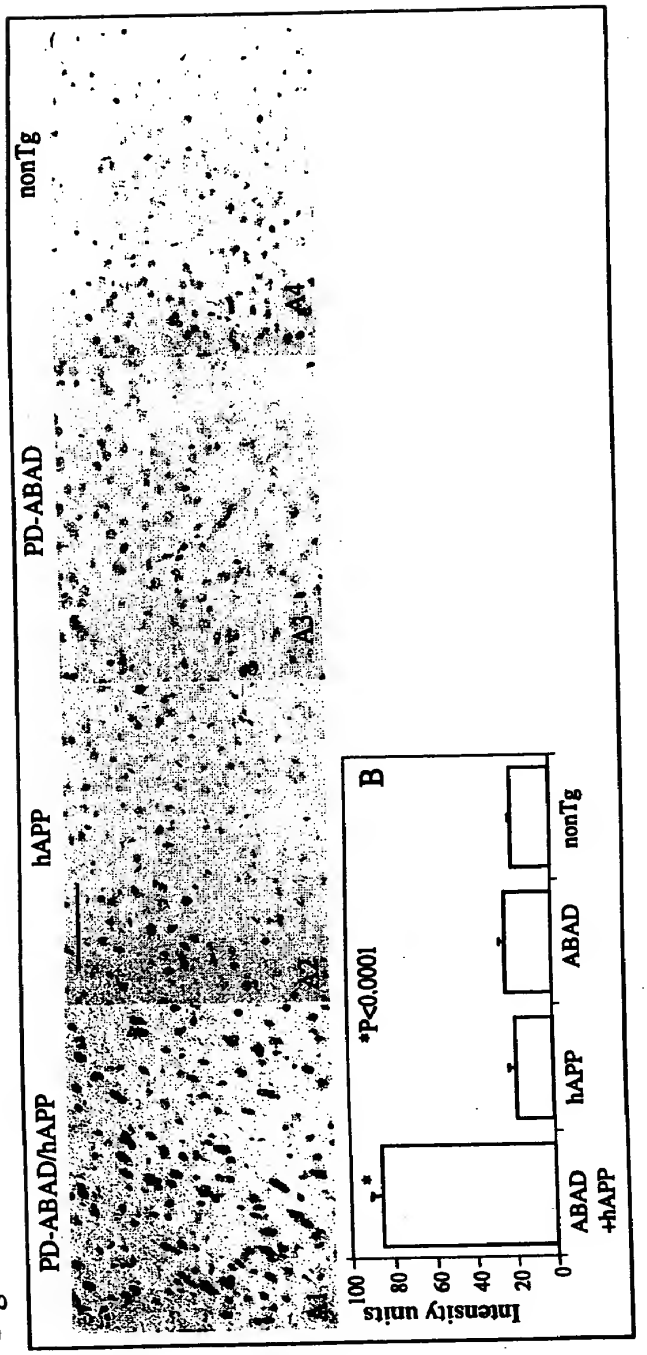


Figure 12


PD-ABAD/hAPP
hAPP
PD-ABAD
nonTg
A1
A2
A3
A4
B
*P<0.0001
Intensity units
100
80
60
40
20
0
ABAD +hAPP
hAPP
ABAD
nonTg

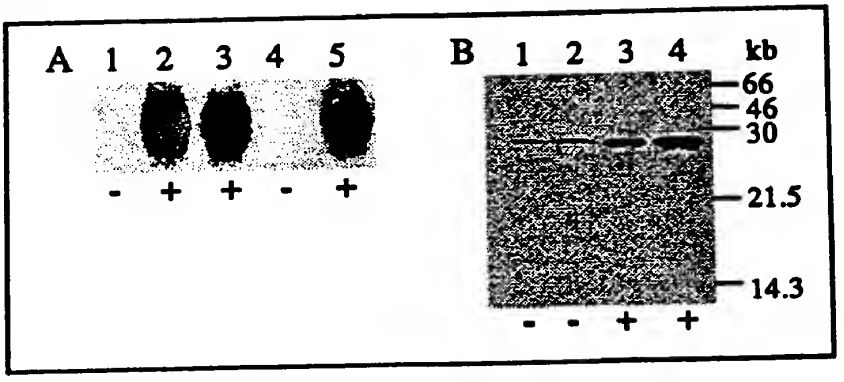



Figure 13